

ON A NEW AUSTRALIAN COCCID.

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(Communicated by A. Sidney Olliff, F.E.S.)

(Plate xv.)

Group MONOPHLEBIDÆ.

Genus CÆLOSTOMA, Maskell.

Adult female with antennæ of eleven joints : body segmented : rostrum and mentum entirely absent in adult stage : anal tubercles absent or inconspicuous : feet not fossorial.

Adult male with faceted eyes. Abdomen without lateral tassels.

This genus differs from *Porphyrophora*, Brandt, in having eleven joints in the female antenna and in the form of the feet : from *Monophlebus*, Leach, in the absence of a rostrum in the female and of abdominal tassels in the male.

The following character has hitherto been given to the genus (see *Scale-insects of New Zealand*, p. 107) :—“adult female naked active.” This must now be abandoned on account of the discovery in New Zealand of a species, *C. assimile*, in which the adult female does not leave the waxy test of the second stage, but remains in it and fills it with her eggs.

The following is the first species of the genus reported outside New Zealand.

Calostoma australe, sp.nov.

(Plate xv., figs. 1-8.)

Adult female of a dull blue-black or very dark purple colour, elongated, distinctly segmented, convex : length apparently averaging $\frac{1}{2}$ inch, but some specimens observed reach to $\frac{5}{8}$ inch : before

gestation active, naked, or covered with thin white meal which sometimes appears like short cotton at the posterior end. Antennæ tapering, with eleven joints: the joints are all nearly equal, and somewhat hairy. Feet rather thick: tibia and tarsus fringed on the inner side with strong spiny hairs: upper digitules very short, lower pair represented by a short, stiff seta: claw slender: femur rather thick. Anogenital ring apparently absent, but a simple transverse orifice, with a smaller one on each side of it, may be detected at the anal extremity. Rostrum and mentum entirely absent, but there seems to be an orifice between the first pair of feet, situated in a deep corrugation of the ventral skin. After treatment with caustic potash the skin is seen to be marked with a great number of oval, semi-translucent cells, in the middle of each of which is a small brown cone bearing a minute orifice at the top. Anal tubercles absent.

Adult male dark red, the wings bluish-purple with red nervures. Length of body about $\frac{1}{5}$ inch; expanse of wings nearly $\frac{2}{3}$ inch. Eyes large, faceted. Antennæ of ten joints, the first two short, the next four rather long and slender, the rest somewhat shorter: there are no nodosities on the joints, but numerous very short hairs on each. Haltere very large, ovate, bearing a single curved seta at the end. Abdomen distinctly segmented: no lateral tassels. From the last three segments but one there spring, dorsally, a number of white, glassy, delicate, straight filaments, coalescing to form a brush-like tail which in some specimens is nearly three times as long as the body. The last segment terminates in a short, conical spike from which protrudes the penis. Feet long, slender: digitules very short and fine.

Hab.—On *Angophora* sp., Sydney, N. S. Wales. I am indebted to Mr. A. Sidney Olliff for specimens of adult males and females, obtained by him in January, as also for the opportunity of describing the species.

This very large and handsome insect is clearly distinct, not only in the colour and skin-markings of the female, but also in the peculiar "brush" of the male. I have not seen either the larva

or the second stage. The former, in all probability, will not greatly differ from those of other Monophlebid, except perhaps in colour. No writer that I know of has described the second female state of any foreign Monophlebid except *Icerya* and, doubtfully, *Drosicha*, and yet this would be exceedingly interesting. In the case of the New Zealand species of *Cælostoma*, as far as they are known, the second stage is found in thick, waxy cases or "tests," either above or under ground. It is likely that the same would occur with *C. australe*, though the variation of Coccids are so curious that nothing can be predicated certainly on the point. As this is the first species of the genus found outside New Zealand, I have thought it best to attach to it the name *australe* more especially as, from its active habit in the adult state and from the absence of a rostrum, it would not be easy to ascribe to it any particular food-plant.

EXPLANATION OF PLATE.

Cælostoma australe.

- Fig. 1.—Adult female (dorsal view).
 Fig. 2.—Adult male (dorsal view),
 Fig. 3.—Antenna of female.
 Fig. 4.—Skin-markings of female.
 Fig. 5.—Foot of female.
 Fig. 6.—Antenna of male.
 Fig. 7.—Haltere of male.
 Fig. 8.—Abdominal segments and filaments of male (side-view).
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UNDESCRIBED AUSTRALIAN LEPIDOPTERA FROM
 BRISBANE, QUEENSLAND.

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 AND L.M., EDIN.